

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A ~~router device for use in a communication system having at least two telephone devices in communications with each other for transferring voice information therebetween through a packet-switching network, the router device being coupled between one of the telephone devices and the packet-switching network and for performing one of a plurality of types of compression/decompression (codec) operation on information being transferred between the telephone devices comprising:~~

a Digital Signal Processor (DSP) module ~~responsive to receive~~ an analog telephone signal ~~from one of the telephone devices and operative~~ to convert the analog telephone signal to a digital telephone signal and further ~~operative~~ to packetize the digital telephone signal for transmission to a remotely-located ~~router device~~, the ~~router device~~ and the remotely-located device initially ~~to mutually negotiating~~ negotiate to utilize a ~~first type of~~ codec by simultaneously sending to each other one or more types of codecs that each supports and each ~~deciding to use~~ selecting a mutually supported codec ~~through the use of~~ with a predetermined protocol and during communications between the remotely-located ~~router device~~ and the ~~DPS~~ DSP module, the DSP module for renegotiating the use of a second type of codec and switching ~~from using said first type of codec to using said~~ the second type of codec upon detection of signal degradation ~~in the quality of the voice information~~,

wherein, ~~during communications between the remotely located router device and the DSP module~~, the type of codec being utilized is repeatedly, mutually, renegotiated to dynamically change compression techniques ~~to adjust for network usage thereby optimizing the use of network capacity and throughput and further~~ wherein switching between the codecs is performed during a call ~~while a conversation is taking place between the two telephone devices yet avoiding substantial disturbance to users of the telephone devices.~~

2. (Currently amended) A ~~router device~~ as recited in claim 1 wherein switching between the codecs is initiated by a user of one of the telephone devices.

3. (Currently amended) A ~~router~~ device as recited in claim 2 wherein a predetermined code is assigned to correspond to each codec wherein the user specifies the type of codec to be switched to by entering the predetermined code corresponding to a desired codec ~~into one of the user telephone devices.~~

4. (Currently amended) A ~~router~~ device as recited in claim 3 wherein the predetermined code is programmably-alterable.

5. (Currently amended) A ~~router~~ device as recited in claim 1 wherein upon detecting lower bandwidth available on ~~the a~~ packet switching network for ~~transmitting packet therethrough~~, the ~~router~~ device for switching from a codec resulting in the use of larger packet sizes to a codec resulting in smaller packet sizes.

6. (Currently amended) A ~~router~~ device as recited in claim 5 wherein the device for automatically detecting the lower bandwidth.

7. (Currently amended) A ~~router~~ device as recited in claim 1 wherein upon detecting higher bandwidth available on ~~the~~ packet switching network ~~for transmitting packet therethrough~~, the ~~router~~ device for switching from a codec resulting in the use of smaller packet sizes to a codec resulting in higher packet sizes.

8. (Currently amended) A ~~router~~ device as recited in claim 5 wherein the ~~router~~ device for automatically detecting the higher bandwidth.

9. (Currently amended) A ~~router~~ device as recited in claim 1 wherein the remotely-located ~~router~~ device detects the degradation in the quality of the voice information.

10. (Currently amended) A ~~router~~ device as recited in claim 1 wherein the degradation in the quality of the voice information is due to loss of one or more packets.

11. (Currently amended) A ~~router~~ device as recited in claim 10 wherein a threshold defines the number of lost packets that are tolerated triggering a decision to switch to the second type of codec.

15. (Currently amended) A ~~router~~ device as recited in claim 14 wherein a fax overlay is transferred between the ~~router~~ device and the remotely-located ~~router~~ prior to transmission of fax information therebetween.

16. (Currently amended) A ~~router~~ device as recited in claim 14 wherein the ~~router~~ device is further operative to detect a fax tone prior to transmission of the fax information and upon completion of the fax transmission the ~~router~~ device is operative to resume the telephone conversation.

17. (Currently amended) A method ~~for use in a communication system having at least two telephone devices in communications with each other for transferring voice information therebetween through a packet switching network, the router device being coupled between one of the telephone devices and the packet switching network and for performing one of a plurality of types of compression/decompression (codec) operation on information being transferred between the telephone devices comprising:~~

receiving an analog telephone signal through a telephone connection from a first one ~~of the telephone devices;~~

converting the analog telephone signal to a digital telephone signal;

separating information carried on the digital telephone signal into packets of information;

initially, mutually, negotiating a first type of codec for communication with a second ~~between the telephone devices~~, by simultaneously sending to each other one or more types of codecs that each supports and each deciding to use a mutually supported codec through the use of a predetermined protocol;

using a first type of codec for transferring the packets of information between the two telephone devices through ~~the a~~ packet switching network;

during communication between the telephone devices, renegotiating the use of a second type of codec;

switching to using ~~said the~~ second type of codec upon detection of degradation in the quality of the voice information during the course of the telephone connection; and

during communication between the telephone devices, upon further detection of signal ~~degradation in the quality of the voice information~~, repeatedly renegotiating to dynamically change compression techniques ~~to adjust for network usage thereby~~

~~optimizing the use of network capacity and throughput.~~

18. (Currently amended): A ~~router~~ device as recited in claim 1 wherein the codec negotiation is performed pursuant to the H.245 protocol.

19. (Currently amended): A ~~router~~ device as recited in claim 1 wherein the first type of codec utilizes a compression/decompression algorithm defined by any one of the standards: G.711, G726, G729 or G723.1 and the second type of codec utilizes a compression/decompression algorithm defined by any one of the standards: G.711, G726, G729 or G723.1.

20. (Currently amended): A ~~router~~ device as recited in claim 14 wherein the connections are established pursuant to the M.225 protocol.